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隐肋甲螨属在我国的发现及一新种记述*

(蜱螨亚纲：甲螨亚目，滑珠甲螨科)

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Aoki[1] 于1970年建立隐肋甲螨属 *Costeremus*，模式种为产于日本对马岛的 *C. ornatus*。Fujikawa 等[2](1985)记述了该属的另一种类，即产于日本北海道的 *C. yezoensis*。作者在福建武夷山区调查甲螨时发现隐肋甲螨属，这是该属在我国的首次报道，也是日本以外地区的首次记录。本文记述一新种，并对该属的一些形态特征予以讨论。模式标本保存于中国科学院动物研究所。

角隐肋甲螨 *Costeremus cornutus* Wang，新种 (图1～5，图版 Ⅰ:1,2)

体长 330 μm，体宽 146.5 μm。褐黄色。长椭圆形，后背板的中部为体躯的最宽处。

体壁：体表光滑。前背板的表面、足突和后背板后缘、后背板毛的基部，以及除跗节端部外的各足节均覆盖颗粒状的腊被，侧面观呈柱形。

前背板：吻端圆钝、光滑。前背板两侧各有一条纵脊，彼此远离，近于平行，前端着生吻毛(*ro*)，后端各有一个三角形的突起。感器窝之间有前、后两条横脊，前面的一条稍呈弯拱形，其前缘两侧各有一个圆突状突起，与前面纵脊末端的突起相对；后面的一条与感器窝周围的脊相连结。在上述二脊围绕的区域内，还有一对短的纵脊，其内侧着生梁间毛(*in*)。前背板侧缘，位于感器窝的前外侧形成一个圆突状突起，其外缘覆盖深色的腊被，呈耳状。吻毛(*ro*)光滑，末端尖细，向内侧弯曲。梁毛(*le*)短于 *ro* 毛，基部有刺毛。梁间毛(*in*)和感器窝外毛(*ex*)呈枝状。感器窝由一半环状的脊所围绕，其后缘有一刺状突起。感器(*ss*)细长如鞭，基部稍粗，但无明显膨大，端部渐细，其长度为感器窝之间距离的3倍。

后背板：长椭圆形。前缘平直。表面有三对脊：(1) 从后背板前缘向后延伸的纵脊，其前端呈三角形，后端宽阔，向侧面分开；(2)中间的一对脊呈半圆形，彼此不连结；(3) 斜向中央的纵脊。后背板毛11对。*da*、*dp* 毛短，呈二或三叉形，其余后背板毛分支浓密，其中 h_1—h_3 和 p_1—p_3 毛具一粗壮的"干部"，自端部1/3具有树杈状的分支。后背板的两侧、位于足Ⅲ、Ⅳ之间各有一圆突状突起，其外缘被以深色腊被，呈耳状。

腹面：基节板毛式：3－1－3－3，刚毛短小简单。前足体和后足体的侧缘、位于足

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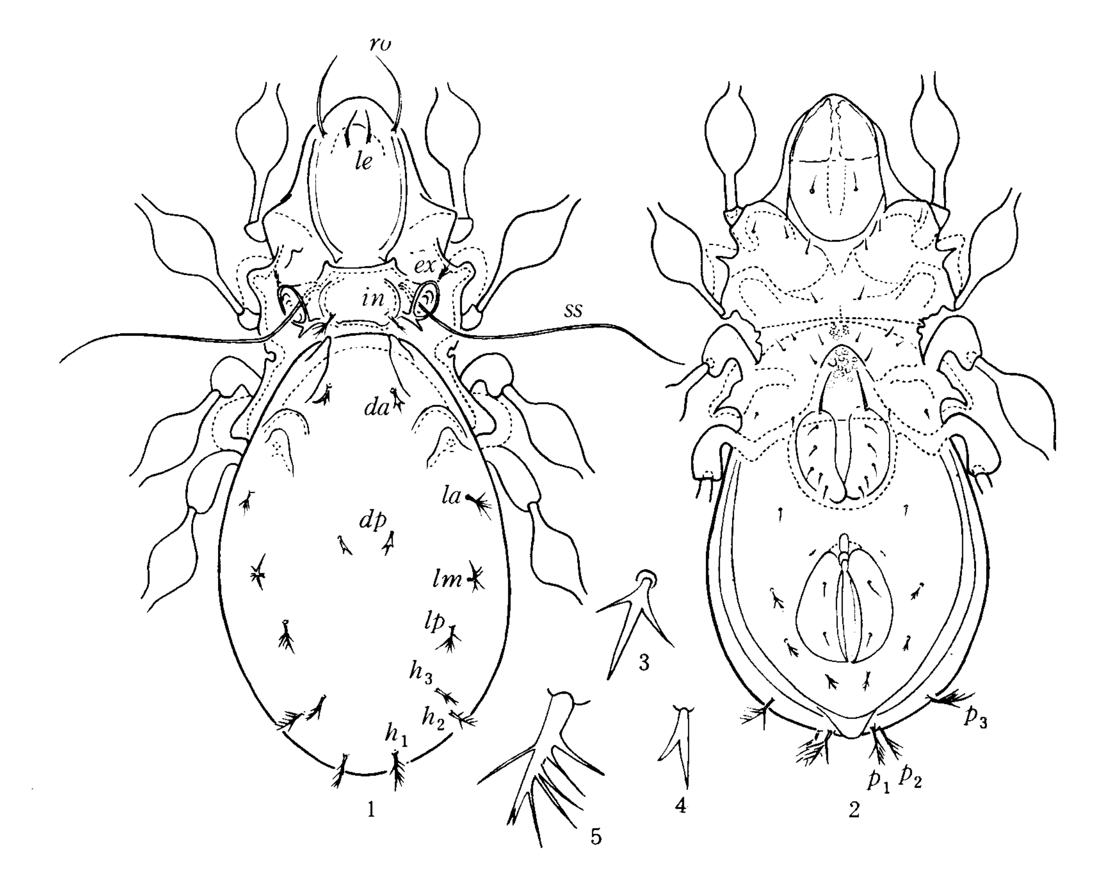


图 1 ～ 5 角隐肋甲螨 *Costeremus cornutus* Wang sp. nov.

1. 背面； 2. 腹面； 3. *da* 毛； 4. *dp* 毛； 5. h_1 毛

Ⅰ、Ⅱ基节之间和足Ⅲ、Ⅳ基节之间各有一个三角形尖突，其外缘分别被以深色的腊被。表皮内突 apo_4 向内侧延伸，与生殖板的前缘相连结，并向前延伸至 *apo . sj*，前方呈半圆形或弓形。生殖孔与肛孔大型，生殖毛(*g*)6 对，g_1 长于其余生殖毛。侧殖毛(*ag*)1 对，位于生殖孔的后侧方。肛孔梨形，具棒状的肛前器。肛毛(*an*)2 对，简单。肛侧毛(*ad*)3 对，有枝状分支毛。隙状器(*iad*)位于肛孔的前外侧。腹板的后端中央稍微向后端突出。

足：各足跗节爪单趾。各足的股节基部呈棒状，而端部膨大。其余各足节呈球状膨大。基部各足节的刚毛呈枝状。

正模：(W－89－29 玻片，) 1989. Ⅳ. 30，福建武夷山(三港)，采于杉木根际的落叶。

讨 论

1. 新种与该属的模式种 *C. ornata* Aoki (1970)相似，例如体形，前、后背板上脊的结构，背毛的形状等。但该新种有如下特征与之区别：(1)新种感器的基部不形成明显膨大；(2) 感器窝之间、位于后侧的横脊明显，不具有成对的圆形小突起；(3)后背板第二对横脊半圆形，彼此不相连结；(4)腹面侧缘位于足Ⅰ、Ⅱ基节之间和足Ⅲ、Ⅳ基

节之间各有一个三角形的尖突；(5) 背毛形状上的差别，如新种的 *ro* 毛光滑无刺毛；*le* 毛仅基部具少量刺毛；*da* ,*dp* 毛分支少，呈二或三叉形；后背板末端的刚毛具粗壮的"干部"。

2. Aoki (1970)在原始描述中指出："pedotecta Ⅰ and Ⅳ well developed, each with a dark-colored ear-like appendage"。根据作者对新种的观察，"dark-colored earlike appendage"可能为腊被(cerotegument)，类似结构常在珠甲螨科 Damaeidae 种类中发现(图版Ⅰ: 3,4)。

3. 该新种从背面观察，前、后背板的侧缘，分别位于足Ⅰ，Ⅱ之间和足Ⅲ，Ⅳ之间各有一对突起，其外缘被以深色的腊被，呈"耳状"。从腹面观察，前足体和后足体的侧缘，分别位于基节Ⅰ，Ⅱ之间和基节Ⅲ，Ⅳ之间各有一对呈三角形的尖突，其外缘也被以深色腊被，呈三角形。因此该新种的体侧缘可见到四对明显的突起。腹面的三角形尖突在 Aoki 的原始描述中未曾记述过。

4. Aoki (1970)在隐肋甲螨属 *Costeremus* 属征及模式种 *C. ornata* 的描述中记述"后背板毛 10 对"，而附图 fig.35 中绘了 11 对，描述与附图不符。根据作者对新种的观察，后背板毛应为 11 对，图此该属属征应作订正。

致谢　于延芬同志拍摄照片，特此致谢。

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DISCOVERY OF THE GENUS *COSTEREMUS* FROM CHINA, WITH DESCRIPTION OF A NEW SPECIES (ACARI: ORIBATIDA, DAMAEOLIDAE)

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Abstract　Aoki (1970) erected the genus *Costeremus* with *C. ornata* Aoki as the type species. Fujikawa and Fujita (1985) described the second species *C. yezoensis*. The present paper deals with a new species of *Costeremus* from China. The genus is recorded for the first time from China, as well as from the outside area of Japan.

The type specimen is deposited in the Institute of Zoology, Academia Sinica.

Costeremus cornutus **Wang, sp. nov.** (figs. 1 ~ 5, pl. I:1,2)

Dimensions. Length 330 μm, width 146.5 μm.

Diagnosis. Prodorsum with a pair of longitudinal, widely separated ridges and two transversal ridges between bothridia. Sensillus flagellate, without expansion on the proximal portion. Notogaster having 3 pairs of ridges on the anterior part and 11 pairs of notogastral setae which mostly are pilose. Prodorsum and notogaster with a pairs of conspicuous, rounded tubercles on the lateral margin respectively. On the ventral aspect, a pair of triangular tubercles with acute point located between coxae Ⅰ and Ⅱ as well as between coxae Ⅲ and Ⅳ. Each tubercle covered by dark colour cerotegument.

Material examined. Holotype (W－89－29, on slide), April 30, 1989, Mt. Wuyi in Fujian Province, *ex* litter under China fir tree.

Remarks　1. This new species resembles type species *C. ornata* Aoki 1970, in the shape of body, struncture of ridges on prodorsum and notogaster and pilose dorsal setae. But it differs from the latter in the following characters: (1) Sensillus not forming distinct expansion; (2) the second transversal ridge on prodorsum without rounded small projections; (3) the second ridges on notogaster semi－rounded, and not connected each other; (4) on the ventral aspect, there are small triangular tubercles between coxae Ⅰ and Ⅱ, as well as between coxae Ⅲ and Ⅳ; (5) rostral setae smooth; lamellar setae only with a few pectinations proximally; setae *da*, *dp* not having strongly pilose, being bi－or trifurcated. 2. In the original description, Aoki described: "pedotecta Ⅰ and Ⅳ

well developed, each with a darkcolored ear－like appendage". According to the observation on the new species, the authors consider that "dark－colored earlike appendage" may be cerotegument which can be found frequently in the Family Damaeidae (pl. I: 3,4). 3. Four pairs of distinct tubercles can be observed on the lateral margine of *C. cornutus* sp.nov. From dorsal view, there is a pair of rounded tubercles located on lateral side of prodorsum and notogaster respectively which covered by deep colour cerotegument, they appear the same outline with butercles. From ventral aspect, another pair of triangular with acute tip tubercles located between coxae Ⅰ and Ⅱ as well as between coxae Ⅲ and Ⅳ which covered by cerotegument showing the same contour with triangular tubercles. The latter not heen mentioned in Aoki's description. 4. Aoki (1970) described: "notogaster has 10 pairs of notogastral setae" in the genus definition and the description of *C. ornatus*, but 11 pairs of notogastral setae were drawn in fig.35. The new species *C. cornutus* has 11 pairs of notogastral setae, therefore, the definition of the genus *Costeremus* should be corrected.

图 版 说 明

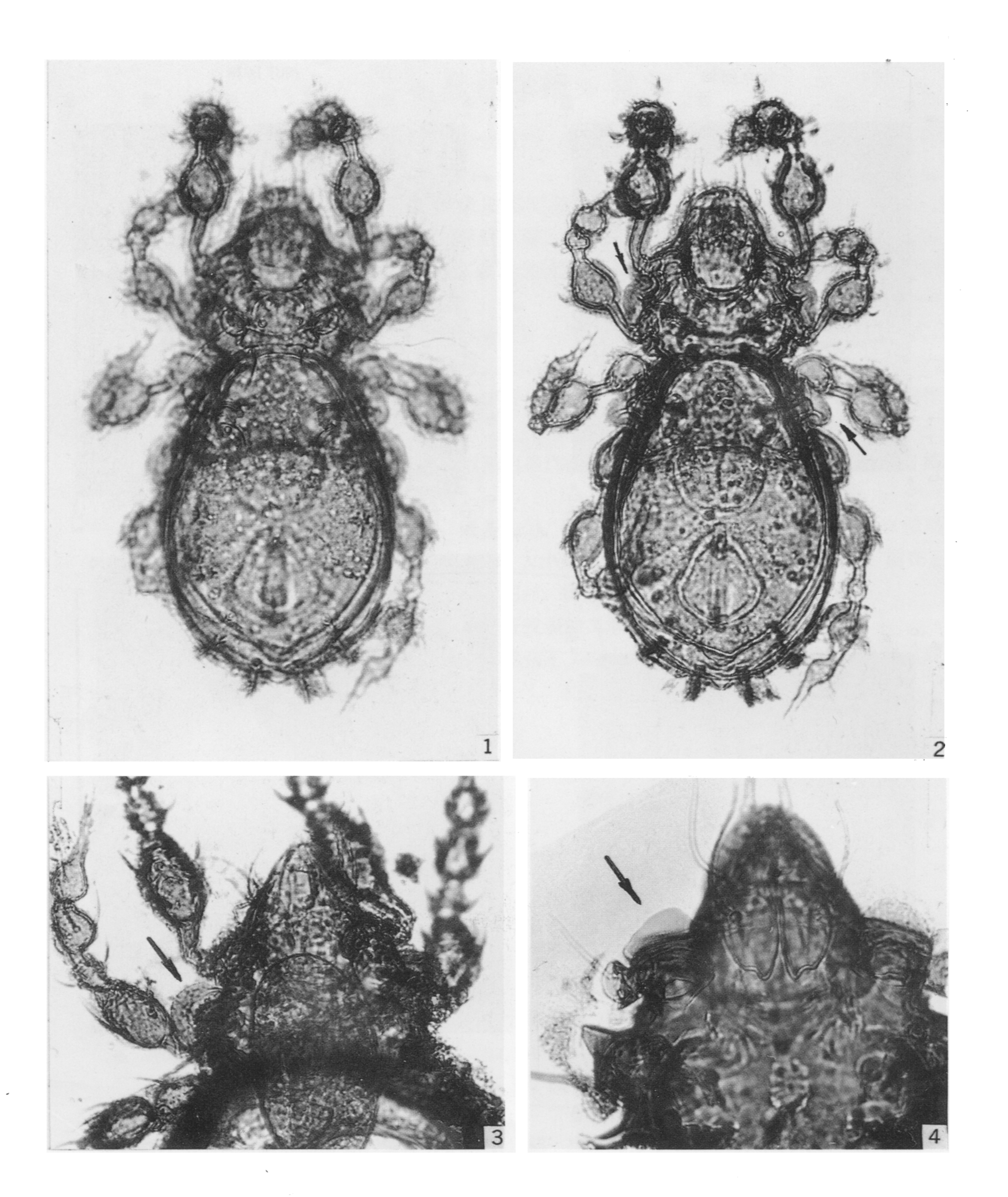
图版 Ⅰ

1～2 角隐肋甲螨*Costeremus cornutus* Wang, sp.nov.

1. 背面; 2. 腹面，箭头标示基节Ⅰ、Ⅱ之间和基节Ⅲ、¥Ⅳ之间的角状突起及周围的腊被;

3. 一种珠足甲螨 *Belba* sp. 的前足体，箭头标示基节Ⅰ、Ⅱ间的腊被;

4. 一种表珠甲螨 *Epidamaeus* sp. 的前足体，箭头标示足盘腔Ⅰ背面的腊被


1
2
3
4